# Soil and Water Remediation, Groundwater/Vadose Zone (RL-0030)

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Latest capped decommissioned Webster well

#### **Overview**

This section addresses work in Project Baseline Summary RL-0030, *Soil and Waste Remediation Groundwater/Vadose Zone.* 

NOTE: Unless otherwise noted, all information contained herein is as of the end of March 2005.

### **Notable Accomplishments**

**Tri-Party Agreement Milestone M-24-57:** Six of fifteen calendar year 2005 TPA milestone M-24-57 wells have been completed. One well was completed in early March. Another well began drilling on February 2, 2005, and well construction was completed on March 28, 2005. When the contractor went to install the pump, it was discovered that the well was constricted at approximately 162 feet. A recovery has been proposed by the contractor, and equipment is currently onsite to repair the well. Repair work will begin the week of April 25, 2005. The monitoring well at the Z-9 Crib is well along in construction, which began on February 3, 2005. This well is scheduled to be sample-ready in April 2005.

**Other well drilling activities:** Drilling of one of four characterization boreholes at the In-Situ Redox Manipulation (ISRM) barrier in the 100-D Area Has begun. The data that is gathered from these four holes will be used to evaluate the performance of the barrier to reduce chromium in the groundwater.

**Well Decommissioning:** There has been continued progress on the work to decommission wells that pose a high risk to provide a pathway for contamination to move directly to the groundwater. Work on fifty-three of the seventy-four high-risk wells is in progress. Three of the wells are completely decommissioned. Jet-shot perforation activity has been performed in 21 wells over 2460 feet of casing (20 percent of the total). A total of 562 feet of casing has been mechanically perforated using cutting tools. A total of 3156 feet of casing has been cemented.

**Carbon Tetrachloride DNAPL Investigation:** A key question for soil and groundwater cleanup in the 200 West Area is whether carbon tetrachloride is present as a dense non-aqueous phase liquid (DNAPL). RL has contracted Vista Engineering to work with Fluor Hanford (FH) to evaluate this issue. Vista completed cross-well seismic testing in the Z-9 area on March 31, 2005. Soil vapor sampling using cone penetrometer technology is scheduled to begin at the Z-9 area in April 2005.

# FY 2005 Funds vs. Spend Forecast (\$M)

	Projected FY 2005 Funding	FY 2005 Fiscal Year Spend Forecast	Variance	
Soil & Water Remediation,	ф ГГ <i>(</i>	ф FF /	\$ 0.0	
Groundwater/Vadose Zone	\$ 55.6	\$ 55.6		

# FY 2005 Schedule/Cost Performance (\$M)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
Soil & Water	\$25.3	\$20.9	\$22.2	-\$4.5	-17.6%	-\$1.4	-6.5%	\$55.4
Remediation,								
Groundwater/								
Vadose Zone								

Numbers are rounded to the nearest \$0.1M and include the Closure Services allocation.

## FY 2005 Schedule/Cost Performance, continued

Schedule Performance (-\$4.5M/-17.6 %). The unfavorable schedule variance is due to:

- Delayed award of the jet-shot and mechanical perforation decommissioning contracts.
- ISRM was delayed due to geophysical logging of barrier wells.
- Waterline work not being performed this fiscal year.
- Chromium plume remediation behind due to additional treatability test plan finalization.

The schedule associated with well decommissioning will be recovered; field work started in mid-January 2005.

Cost Performance (-\$01.4M/-6.5%). The unfavorable cost variance is due to:

• Increased labor costs associated with new staff in the Integrated Field Work areas.

